



Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Bobs Creek

Water Body Segment at a Glance:

County: Lincoln
Nearby Cities: Fountain N' Lakes
Length of impaired segment: 12.5 miles
Length of impairment within segment: 3.5 miles
Pollutant: Low Dissolved Oxygen
Source: Lincoln County Wastewater Treatment Facility
Water Body ID: 0035



State Map Showing Location of Watershed

Scheduled for TMDL development: 2011

Description of the Problem

Beneficial uses of Bobs Creek

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Protection of Human Health (Fish Consumption)
- Whole Body Contact Recreation

Use that is impaired

- Protection of Warm Water Aquatic Life

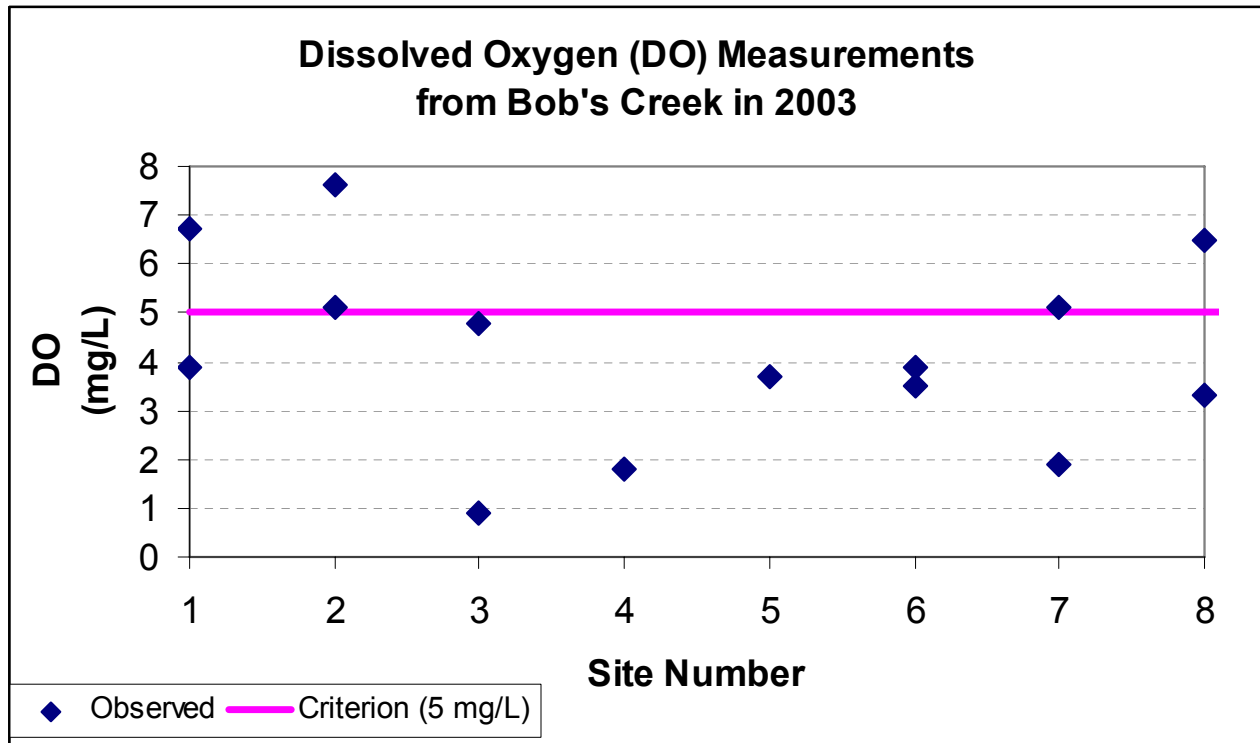
Standards that apply

- In the Missouri Water Quality Standards, found in 10 CSR 20-7.031 Table A, the criterion for dissolved oxygen, or DO, in streams is a minimum of 5 mg/L (milligrams per liter or parts per million).

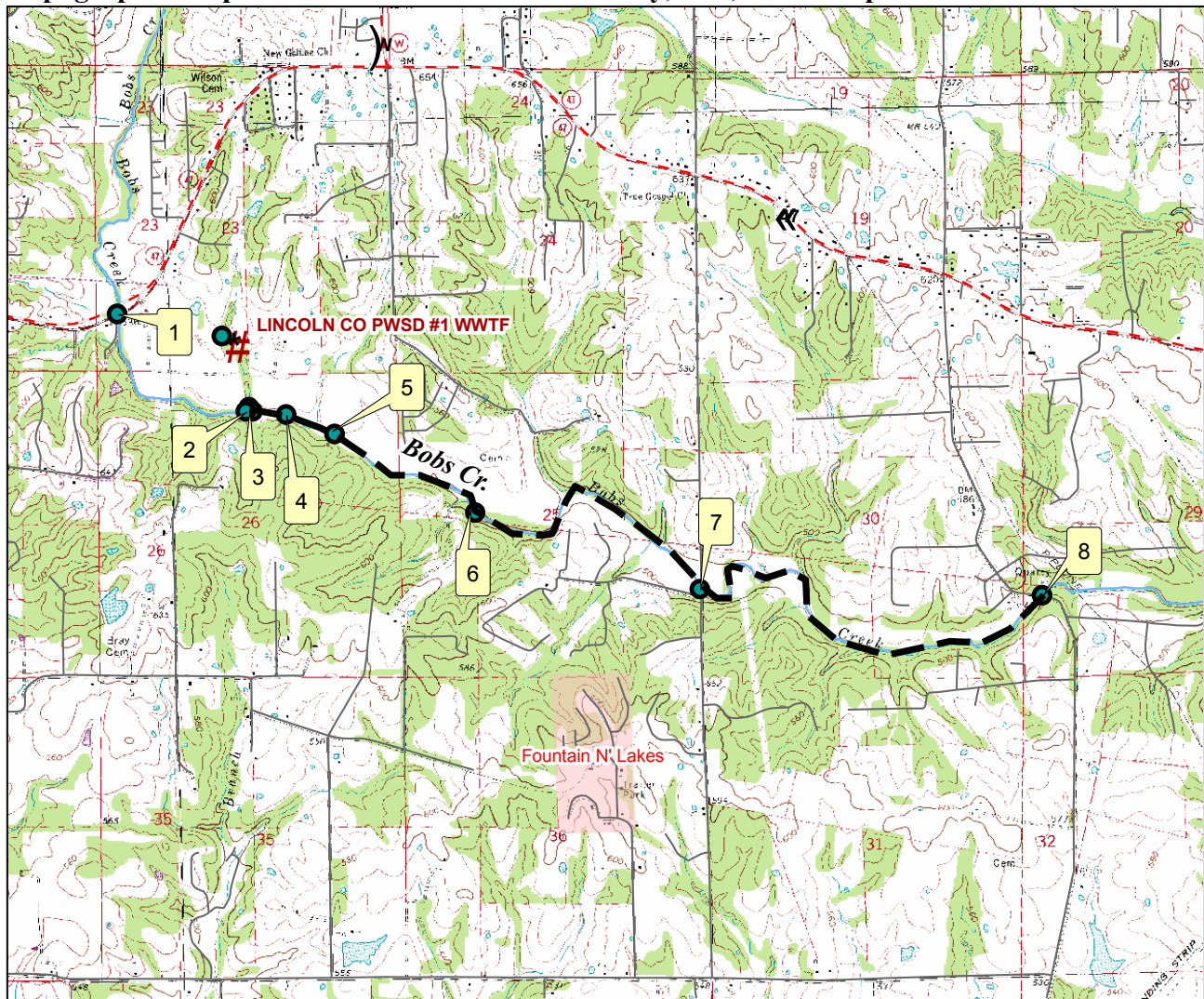
Background information and water quality data

The Lincoln County Wastewater Treatment Facility, or WWTF, discharges to an unnamed tributary of Bobs Creek in east-central Missouri. Water quality conditions in Bobs Creek are not protective of aquatic life. Midwest Environmental Consultants conducted a wasteload allocation study (a water quality study) in 2003 and found that several instream dissolved oxygen measurements failed to meet the water quality criterion. For dissolved oxygen, if more than 10 percent of measurements in a water body fail to meet the water quality criteria, that water body is judged to be impaired. In

the case of Bobs Creek, 9 of 14 samples (64 percent) did not meet the water quality criterion. Wastewater effluent that is high in biochemical oxygen demand, or BOD, will lower the dissolved oxygen in a stream and stress or be lethal to the aquatic organisms that require dissolved oxygen to survive. Like all wastewater discharges in Missouri, the Lincoln County WWTP must meet the requirements of a discharge permit issued by the Missouri Department of Natural Resources. The limits in this permit can be adjusted to prevent the creek from being impaired.



Topographic Map of Bobs Creek in Lincoln County, Mo., with Sample Site Locations



--- Impaired Segment

→ Direction of flow

Sample Sites

- 1 – Bobs Creek at Highway 47
- 2 – Bobs Cr. just above Trib.
- 3 – Bobs Cr. just below Trib.
- 4 – Bobs Cr. 0.1 mi. below Trib.

- 5 – Bobs Cr. 0.3 mi. below Trib.
- 6 – Bobs Cr. 0.9 mi. below Trib.
- 7 – Bobs Cr. at County Road 841
- 8 – Bobs Cr. at County Road 845

For more information call or write:

Missouri Department of Natural Resources, Water Protection Program

P.O. Box 176, Jefferson City, MO 65102-0176

1-800-361-4827 or 573-751-1300 office or 573-522-9920 fax

Program Home Page: www.dnr.mo.gov/env/wpp/index.html